

REMARKS

Applicants respectfully request reconsideration and withdrawal of the outstanding Office Action rejections based on the following remarks.

Rejections under 35 U.S.C. § 103(a)

Claims 15-23 and 26-29 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Koppenhagen (WO 00 05951) in light of Martin (EP 279068). The Examiner contends that Koppenhagen teaches a capsule suspension containing two materials with one material being encapsulated and the other material contained in the aqueous phase (see p. 23, 1st full para.). Koppenhagen teaches the use of a microcapsule formed from an aminoplast shell wall and an encapsulated ingredient, where the aminoplast shell contains an ester-containing crosslinking unit which renders the shell base sensitive and triggers the release of the encapsulated contents on exposure of the capsules to basic conditions (see p.1, 1st full paragraph; p. 3, 2nd full paragraph; p. 4, para. 3). This is contrary to the composition of the microcapsule of the instant claims (instant claim 16). Therefore, the Koppenhagen microcapsule is not analogous to the microcapsule of the instant claims and cannot render the claims obvious.

Furthermore, assuming arguendo, that the Koppenhagen microcapsule is analogous to the microcapsule of the instant claims, the Koppenhagen disclosure would not be enabled for a microcapsule composition of the instant claims. In reference to the disclosure in Koppenhagen on p. 23, first full paragraph, the disclosure does not provide

any example of such a formulation. It must also be noted that Koppenhagen stresses that such a combination is reasonable if the two materials are incompatible with each other. In particular it is stated that "such combination products are storage-stable but produce a combination pesticidal product in the spray tank when a basic substance is added, so that both pesticides may be applied together" (see p. 23, II 7-9). In other words, such a combination only makes sense, if a first material is incompatible with a second material, because encapsulation of the first material hinders the ability of the second material to contact the first material and thus prevents undesirable interaction between the two materials. Hence, there would be no advantage to combine an encapsulated pesticide with the same non-encapsulated pesticide, since the pesticide cannot have an undesirable interaction with itself.

In this context one must also note that the focus of Koppenhagen is not on encapsulated herbicides but one encapsulated insecticides. As such, Koppenhagen's microcapsules have particular utility in control of insects which have an alkaline environment in their gut (see p. 23, beginning at line 10). This is because the crosslinking agent contained in the shell-material is base-sensitive and thus triggers the release of the encapsulated contents on exposure of the capsules to basic conditions in the insect guts. Therefore, one of skill in the art would not be motivated by Koppenhagen to combine encapsulated pendimethalin with non-encapsulated pendimethalin because the particular advantages gained by the Koppenhagen microcapsules have no relevance to a herbicide.

The Examiner contends that it would have been advantageous to make a composition comprising the same material where a portion of material is encapsulated and the other portion is non-encapsulated. He argues that one would have been motivated to do this in order to make a composition that would have both control and immediate release of the active. This argument is based on improper hindsight and no motivation in prior art can be found to do so.

The Examiner further argues that the results on page 11 in table 1 of the instant specification do not show a significant difference in storage stability of the instant composition in comparison to the conventional suspension comprising only non-encapsulated pendimethalin. Contrary to this assertion, the composition of the invention does not show a significant formation (only 0.03% by weight; see p. 11, table 1) of coarse material at storage for 12 weeks at 45°C. In contrast thereto, the conventional suspension concentrate containing non-encapsulated pendimethalin produces significant amounts of coarse material, namely 0.74% by weight, under the same conditions. This is a significant improvement of the compositions of the invention over the conventional suspension concentrate since small amounts of coarse material may cause problems when applying the formulation by clogging nozzles of the spraying equipment, etc. In fact, the conventional suspension concentrate provides almost 25X as much coarse material as the composition of the invention and, therefore, is 25X more likely to clog the spraying equipment during application. The unexpected result is that encapsulating only a part of pendimethalin would lead to a stable aqueous suspension concentrate having a similar stability as an aqueous suspension concentrate containing only encapsulated pendimethalin. Rather, a skilled person would have expected that the

non-encapsulated portion of the pendimethalin still leads to a significant formation of coarse material. However, such a formation, surprisingly, does not occur as evidenced by the results presented in table 1 on page 11 of the instant specification. Thus the properties of the compositions of the instant invention are both unexpected and significant when compared to the prior art compositions.

For the reasons enumerated above, the obviousness rejection based on Koppenhagen and Martin is improper and should be withdrawn.

In view of the foregoing remarks, Applicants respectfully request withdrawal of the outstanding Office Action rejection. Early and favorable action is awaited. The Director is authorized to charge any fees or overpayment to Deposit Account No. 02-2135.

Respectfully submitted,

By _____ /Carolyn L. Greene/
Carolyn L. Greene
Attorney for Applicants
Registration No. 57,784
ROTHWELL, FIGG, ERNST & MANBECK, P.C.
Suite 800, 1425 K Street, N.W.
Washington, D.C. 20005
Telephone: (202)783-6040